

An Essay
on
Bronchitis

Respectfully

Submitted to

the Faculty of the

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by

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Bronchitis.

Inflammation is interesting to the physician as well as the surgeon. While to the one it evinces vitality of the system, to the other there is presented an idiopathic variation from its normal character. Probably no abnormal state has been ~~so~~ prolific of so much discussion and investigation. But while opinions may vary as to the cause and its results, all are agreed that a

correct practical view is absolutely necessary for the successful prosecution of the healing art.

A great majority of all the diseases to which the human frame is liable begin with inflammation, or end in inflammation, or are accompanied by inflammation, or resemble inflammation in their symptoms. It is interesting not only in its morbid phenomena, but also in its healing tendencies. However, it is not our purpose to speak of this interesting subject; for after all that has been said in the case, Celsus ages ago defined it, when he said "*Notae inflammationis sunt quatuor, - rubor et tumor cum dolore et calore.*"

As physicians we have to do with its direct symptoms, by which I mean those cognizable to the sense of sight, hearing or of touch, and what has been termed its constitutional symptoms such as the heat, chill, thirst and excitability of a fever. The circumstances under which it may exist should be kept in mind.

Especially during the consideration of our subject it should not be forgotten that it runs higher in children, plethoric persons, and in those of sanguine temperament, than in those of the opposite conditions. It is also modified according as it affects the different tissues.

There is no portion of the human organism which may not suffer from inflammation. Externally and internally does it oppose itself to the discernment and remedies of the healing art.

We may have the external tegumentary covering of the body inflamed, and again the delicate membranes of the bronchia and lungs become the seat of this abnormal state.

We find however that the internal surfaces which communicate with the air are clothed with a mucous membrane; a fact which is particularly interesting to the physician. He knows that mucous surfaces are not disposed to adhere inflammation. If they

now, the slightest existing causes might be productive of results, which being without the pale of remedial agencies, would result in death.

Although the internal tegumentary membranes are protected from adhesive inflammation and its results, we have to meet and cope with forms of disease which require the greatest professional acquirements, the strictest scrutiny and the most acute discernment.

In order that we may with profit enter upon the more immediate consideration of the subject of this Thesis "Bronchitis," we must first notice the anatomical structure of the bronchi, and their relations to adjoining organs.

Each lung is retained in its place by its root, which is formed, mainly by the pulmonary artery, veins, and bronchial tubes. The bronchi proceed from the bifurcation of the trachea to their corresponding lungs. Indeed they may be considered as two terminations of the trachea, being essentially of the same structure and arrangement. The right bronchus is shorter and of a larger diameter than the left. Having entered the lungs they divide into two branches, and these divide and subdivide dichotomously to their ultimate termination in the intercellular passages and air cells. They have their own arteries and veins.

The fibrous coat of the bronchial tubes is possessed of a considerable degree of contractility. This is soon exhausted by the action of stimulus. The peculiar power of Bell and Strain in diminishing this contractility — affords a good reason homoeopathically, why these remedies act so well in spasmodic asthma.

It has been suggested that the contractility of the smaller bronchi may serve to expell collections of mucus which may have accumulated in them, and which neither ciliary action or the ordinary expiratory efforts suffice to displace.

Considering then the important part and office which the bronchi take in the function of respiration,

we are not all surprised to find
them the seat of serious diseases.

It is now generally allowed that the
lungs cannot be seriously affected
without the bronchial ramifications
being disturbed, though the bronchial
tubes may be in certain states of in-
flammation without impairing the
normal state of the lungs. The bronchial
tubes become the seat of inflammation,
and ~~that~~ this inflammation begins
with the mucous lining.

Having considered the bronchi in their
natural anatomical condition, we will
now investigate them when in a
state of inflammation, or in other
words we will consider the

over

Pathology of Bronchitis.

A knowledge of this important aspect of our subject enables us to diagnose correctly, and thereby attack the enemy at the most available points; and so to prognosticate that in many cases he may cheer his patient, and relieve the anxious care which loving friends manifest in the sufferer's behalf. It can safely be said, that the absence of all excitement & exciting causes in the sick chamber is absolutely requisite either for the patient's good or the physician's name. And this alone, if there were no other reasons, is sufficient to demonstrate the importance of physiology either in the study of the system in a normal

a diseased state, which latter has
been variously called *paralysis*.

In dealing of the pathology of this
disease, it will be better to mention
the symptoms which shall serve to pro-
ve of the abnormal condition there
under consideration.

We find all ages subject to this
disease. It may be congenital & is
most prevalent in the sea shore towns
of N.E., although as it is a higher
grade of catarrh it is found to occu-
py a more or less prominent place
among the diseases incident to par-
ticular localities. There is however
danger of confusing this with other
troubles of the respiratory and vocal
apparatus. It may be either acute

or chronic. The acute form is more common among children, while in the adult the chronic form often presents itself. Yet the acute and chronic forms are not separated by a well defined line.

We often meet the acute form mild and without fever. Here the affection seems to depend upon some irritation of the lining membrane of the nose and throat. Such a case scarcely interferes with the healthy functions. The reaction promptly takes place, and it may be considered to the respiratory apparatus what an aphrexial diarrhoea is to the digestive system.

The temperament of the individual exerts its influence in a marked degree. In the hysterical female, we may have a slight

attack producing an asthmatic and
painful cough. As to the cough
some patients are troubled but little,
while others are harassed by continual
mucous. A tickling sensation is
frequently in the trachea which usually
precedes and follows the cough. We
discover this when the patient lies down,
even in the morning when he is in an erect
position. This will cease after an
expectoration. This is a nervous
symptom. For instance on the exter-
nal skin this may occur, physiology
tells us that it is owing to the large
amount of sensory nervous fibres
which are distributed in its substance.
The cough may be owing to the
secretion passing over the part
of the trachea where the tickling

position is felt, the fever being favored
by the recumbent position; again it has
the same elongation of the vessels in the
substance of suppurative abscesses which
communicate freely with the bronchi.
Position has no effect in relieving the
patient, if the cough is owing to the
elongation of the vessels, while if it
be the presence of suppurative cavities,
it is worse when he lies upon the healthy
side.

There is rarely any change in the
continuation in this form. Then we may
have all those symptoms noted, with
a high fever, the face livid, owing
to the imperfect arterialization of the
blood. The duration of the first stage
is extremely variable. At the second
stage the inflammatory fever passes

into the acute type. By this I mean
a great degree of isolation and
exhaustion, so much so that it may
be said to exist as a habit of the
body. There is perspiration with a sour
smell. The cough continues more
frequent though less painful, and
is followed by a copious expectoration
of more purulent matter, the breathing
though more hurried is less laborious
than in the first stage.

There can be no doubt that many
recoveries which have been considered
as so many cures of *Pneumonia Catarrhalis*
have been only cases of this type of
Bronchitis.

This form may terminate in chronic
Bronchitis; may cause death by a
sudden obstruction of a large tube;

may be accompanied by a rapid or pro-
longed by a slow development of tubercles;
it may pass into pneumonia or
terminate by hydrothorax or end in
death.

The mucous lining of the air passages
cannot be inflamed without the
liquid which it secretes presenting
modifications some of which regard
its quantity, others its quality. The normal
secretion from the mucous membrane
is called mucus. This is a fluid of pe-
culiar viscosity, either colorless or yellow,
slightly transparent or nearly so; incap-
able of mixing with water, and sinking
in it except when buoyed up by sub-
sides of air entangled in its mass, which
is commonly the case with the bronchi-
al and nasal mucus.

Its chief constituent has been termed
mucin. We are now prepared to consider
the character and indications of the
bronchial secretion in Catarrhitis.

At the commencement of the disease
the cough is dry. So long as we have
this dry cough the disease may be
said to be in its beginning. There
occurs the serous secretion which is
thin and transparent. After a
certain period each fit of coughing
is followed by the expectoration of a
clear, transparent mucus like the
white of an egg. This is termed the
transparent mucous secretion. It also
assumes aropy appearance, its tenaci-
ty and viscidty being greater accord-
ing to the degree of irritation under
which the mucous membrane may

be existing. In some respects this resembles
the jelly like sputa of pneumonia.

Upon the surface of this mucus
there is usually more or less froth.
If the patient does not expectorate till
after a long fit of coughing there may
be bubbles of air. Sometimes during
this stage the sputa are mixed with
blood. As long as the sputa present
the appearance which we have noticed,
the symptoms of bronchial irritation
do not improve; the expectorated matter
being in a state of coagulation according
to the ancient mode of expression with
such an expectoration. The inflammation
is intense, and the great dyspnea indicates
a serious aspect of affairs.

But according as the inflammation
proceeds to resolution, the sputa change

their character. The mucus gradually
loses its transparency; it is covered with
opaque, white or greenish masses,
which though sticky at first, increase more
and more until they constitute the whole
of the sputa. This indicates a marked re-
vulsion in all the symptoms, and we may
hope *salus paribus* for a speedy termination
in complete resolution. This opaque, mucous
or albuminous secretion is subject to great
variety. It may go back to its former trans-
parent, soapy, frothy and glaring character.
When this occurs the attending physician
must expect an aggravation of the disease.
Still persons have been known to recover
when the sputa remained in the state
of coagula.

We may see the secreted matter mould
to the form of the bronchial tubes, and

require a certain degree of resistance. Patients
have been known to spend their lives in
water, & the various parts of the body. We
have this apparent deviation from the
normal character of the mucous secretion,
viz. a plastic exudation, we do not know.
The exudation is called plastic. That which
occurs in one disease is not much different
from the mechanism of Symplocaria follicularis.
We have said it is called plastic. But this
can hardly obtain, if we consider the real
force of the crowd. It now becomes regarded,
since excrements itself by blood vessels into
the surface from which it proceeds. It
may be thus explained. The inflammation
involves the sub mucous areolar tissue;
the natural products of this phlegmonous
inflammation transudes readily through
the thin, simple and delicate mucous

membrane. This much however is certain that where the white fibrous tissue is predominant, we have partly, clearly indicated a lymphatic condition of the lung, and hence the liability to formative inflammation is more developed.

In addition to the transparent, stony and opaque we may have the muco puriform and puriform secretions. We meet with the muco puriform chiefly in the second stage of Acute Bronchitis, and in connection with it we have the muco-crepitating rale. In order that the change from the mucous to the muco-puriform may be considered favorable, certain attending circumstances are requisite. The expectoration becomes easier, the pulse softer and slower, breathing easier, the fever diminishing, the muco-crepitating

state becomes larger, and the sound on percussion clear even in the posterior inferior portions of the lung. But we may have the reverse of this with a mucous puriform expectoration. The real purulent expectoration is rare. We have the mucous puriform far more often than the puriform.

Physical Signs.

Percussion and Auscultation.

Percussion is clear, though the chest, except where there is great congestion.

Auscultation.

If the disease is seated in the smaller tubes we have the sibilant rhoncus, if in the larger tubes the sonorous rhoncus, and we have the mucous

rhoncus as the disease advances and
expectoration commences. During the
dry stage we have the hissing sound which
has been termed sibilus. Occasionally you
may suspend the rhoncus by getting the
patient to make a hearty cough. We
may have rhoncus and sibilus together.
If we have sibilus all over the chest,
we are to consider the case as a severe
one, and attended with danger. These
sounds are heard during breathing, and
have no relation to the voice or cough.
When we have the bubbles in the trans-
parent sputa we have a new sound
caused by the passage of the air through
the fluid which is termed, crepitation.
This sign is divided into the larger and
smaller crepitation.

Upon a post mortem examination of
sides of those who have died of any
disease whatever during which they
were affected with a mild and recent
Bronchitis, there is found some redness
in a circumscribed portion of the mucous
membrane, particularly at the termination
of the trachea, and in the first divisions
of the bronchi. The increase of the red-
ness will be according to the severity of
the inflammation. And yet in some
cases of bronchitis accompanied with the
puriform expectoration, the inner membrane
of the air passages has been found scarcely
red, or even perfectly white throughout
its whole extent.

Inflammatory softening of the bronchial
mucous membrane is much more rare
than that of the gastro-intestinal mucous

membranes. It is very rare to find this
abscess absented. Since it is
commonly, destroys life without any
perceptible ulceration of the surface. The
great majority of bronchial ulcerations are
the result of chronic disease. The fre-
quency of ulcerations of the air passages
diminishes from above downwards.

Again we may have a thickening
of the mucous membrane either under
acute or chronic inflammation. This
may occur either throughout its whole
extent, or only at certain points. Such
thickening be it ever so inconsiderable
may be attended by important results.
There may be diminution in the size
of the cavities through which the air
is to pass to enter from the trachea
into the pulmonary vesicles.

It may give rise to the condition of the
lung in which the lung is not
inflated. There may be the opposite
condition obtaining, namely the dilatation
of one bronchus. We may have dilatation
of one or more of the bronchi through the
entire extent of a greater or less increase
of capacity. This more common in the
branches of the bronchi, than in the main
trunks.

There we may have an enlargement
of one of the bronchi at a particular point.
Lastly we may have a continued series
of narrowings and dilatations in the
same bronchial tube. These dilatations
give rise to pectonology and a variable
cough.

Dilatation may be owing to hyper-
trophy or atrophy of the tissues or to the

result of merely mechanical causes in
the long joint articulations probably the treat-
ment of the part is suspended or at least
interrupted. Inflammation may be considered as
a disease, by itself, as we have the
same affection in other structures, but
it may best be understood and treated
as it commonly occurs in connection
with the disease of the neighbouring organs.

We have thus touched on the morbid
anatomy of the crown under the influence
of that diseased state known as Pneu-
chitis. More could be said. But
after all, it is with the general symp-
toms we have to deal when called to
the sufferer. So that knowing all the
rest, if we shall be ignorant of the rem-
edies and means with which we may be
able to effect a cure, we shall bring

contingent upon our progress, and dis-
pose upon occasion.

Before we shall conclude this paper by
some remarks on the treatment of
Pneumonia, more particularly as regards the
acute form.

Treatment.

A distinguished eczematous writer has
declared the treatment of Pneumonia to
be a matter of some difficulty. He says
the patient's distress arises from the inability
to supply air enough to oxygenize the
venous blood which is transmitted to
the lungs; and by diminishing "the
quantity of blood sent to those organs
you will, I no doubt, mitigate his
uneasiness." Sixteen ounces is mentioned
as a moderate bleeding. He adds
nothing as to the convalescence of his

patient. It is further advised for our infor-
mation that when we have decided we
are to take blood by local means. The
quantity is to depend upon the Remission of
the vibrius! The treatment which follows
is severe. The bowels are to be cleared
out by a mercurial purgative. By this
time the weak patient is reduced
to a humble and quivering condition for
some more active, and still mild treat-
ment. Last Rouse is given until nausea
is produced. Depression follows, but they
tell us it is only temporary; would
it not be well for our allopathic
patients to ask, may not such depres-
sion, even in a single case, sometimes
be lasting. Stimulants and expectorants
are now ordered. Opium is administered
to bring on sleep.

And sleep follows. Well! The way
of advice, can hardly be to administer
Opium in a full poisoning dose. "for then
you may have my unpleasant symp-
toms."

Such is the usual allopathic and
common treatment in this country. Prof
Jackson of Harvard Medical College tells
his pupils never to reduce their patients
so low, ^{that} ^{they} may not have the
means to resuscitate him. Another, one
of his colleagues, in a clinic, remarked
this patient would have recovered had
she possessed the vital force requi-
site to withstand the active treatment
which was needed; viz cauterization
with hot irons and a thorough me-
rical course.

Not a brighter day is dawning, Godwin
of the old father, we and nature, both
are striving to vindicate truth and present
successful experience. Perhaps there is no
single instance in which the merits of
Homoeopathy and Allopathy can be more
favorably compared than in Bronchitis.
The Homoeopathic physician does not
commence by depleting the system of
that which Hensen has declared to be
the "life of man," but calmly investigates
the symptoms, gets the history of the
disease; treats not according to rule,
for there is no rule which will apply
to the particular case, as there never
occurred just such a particular identi-
cal disease in its present manifestation
before.

Of course I should not stress the
importance of perfect pulse, contracted
breathing, etc. but the patient must
be quiet. Aconite is administered in the usual
dilution. The baby and nurse
must be enjoined. The patient must
not talk or whisper. Whispering is
worse than loud talking. Particular
attention must be paid to the tem-
perature of the room. The heat must
be from 57° to 60° Fahr.

We mentioned Aconite to be used
at the commencement. Perhaps the
majority of cases would rather indi-
cate Sulphur. We have the dry cough,
stages, pains and cloudiness of the
head, with accumulation of mucus
in the bronchia.

If there is excessive hoarseness and
 loose cough, produced by a titillation
 in the pit of the stomach, with a
 whitish or yellow expectoration and
 apprehensiveness as to death, Phos. Acid.

A very distressing cough with redness
 of the face and vomiting of mucus,
 Hgas. When there is an expectoration
 of bitter, yellowish, or whitish matter
 or of sanguilient mucus. Puls.

When there is a cough with expectora-
 tion of much mucus, which is
 yellow or puriform, with weakness
 particularly across the chest, Sepia
 would be indicated.

Nux Vomica is indicated by pain
 in the bronchia, accumulation of
 mucus, with the head symptoms
 which are peculiar to this drug.

Rhus Tox, where there is obstructed breathing
and great accumulation of mucus.

Arsen, where there is great lassitude
and prostration with tenacious mu-
cus, blood streaked, the expectoration
difficult, with spasms of the pecto-
ral muscles during an inspiration.

Ipecac, where there is anxious and
hurried breathing, rattling noise
in the bronchial tubes.

Scillal may do good service.

Ignatia. Yellow expectoration, sense of
suffocation as from the fumes of
sulphur, especially where these symptoms
occur in patients who have recently
been the subjects of grief.

Bell. Hep, Spoug, Iodine, Kali Hydr.
Last Emetic may all do good
service according to their indications.

The prognosis in a great majority of cases is favourable.

In conclusion there is no class of diseases which presents so many points of interest to the intelligent physician as those of the respiratory organs. As the disease is the more difficult in its character, so is the cause of Homoeopathic medicine the more advanced by the intelligent and well directed efforts of its followers in effecting a permanent cure.

All that is necessary to accomplish this happy result and thus do honor to those who have instructed us, will be found in the degree

with which our career shall be marked
by that which the Immortal Hahnemann
has said is demanded of the physician;
an unprejudiced mind, sound under-
standing, attention and fidelity in
observing and tracing the image
of disease.

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Philadelphia
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